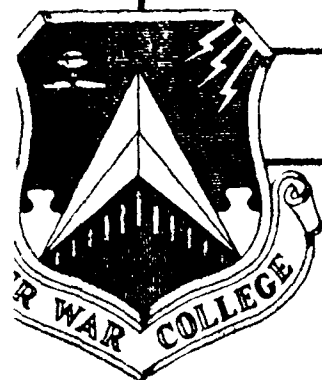


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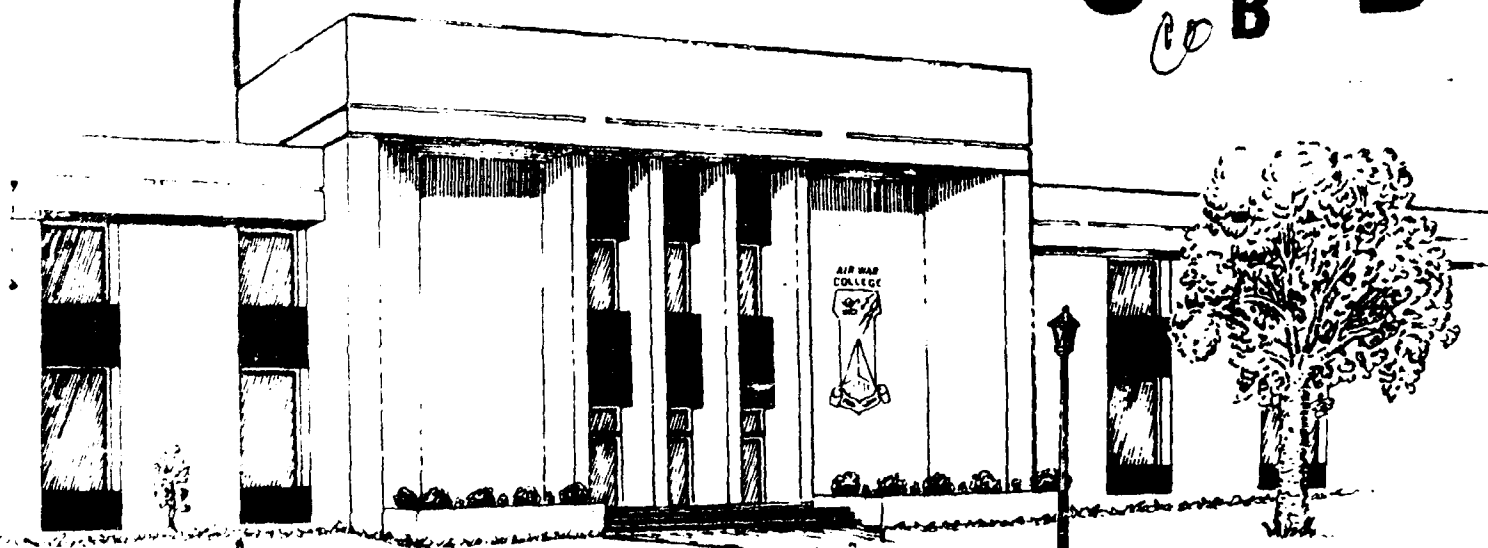
RESEARCH REPORT

THE AIR NATIONAL AND AIR FORCE RESERVE-
MODELS FOR CANADA'S AIR RESERVE?

LIEUTENANT COLONEL JOHN M. WESTROP

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AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

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THE AIR NATIONAL GUARD AND AIR FORCE RESERVE-
MODELS FOR CANADA'S AIR RESERVE?

by

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Lieutenant Colonel. CF

A DEFENCE ANALYTICAL STUDY SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE CURRICULUM

REQUIREMENT

Advisor: Doctor Barton. J. Michelson

MAXWELL AIR FORCE BASE. ALABAMA

May 1989

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EXECUTIVE SUMMARY

TITLE: The Air National Guard and Air Force Reserve- Models for Canada's Air Reserve?

AUTHOR: John M. Westrop, Lieutenant Colonel, CF.

SUMMARY: The Canadian Government's 1987 white paper on defence, **Challenge and Commitment - A Defence Policy for Canada**, emphasizes the Total Force concept, and provides for an increase in the Air Reserve from 950 to over 8000. The United States Air Force experience with a Total Force, incorporating a mix of Active Air Force, Air National Guard and USAF Reserve components is a widely recognized success. What are the reasons for the success of United States' Total Force Air Force, and do they have application for the expansion of Canada's Air Reserve?

This paper examines the direction of the Canadian white paper on defence, reviews the American and Canadian experience with air reserve forces, and extrapolates lessons from the American experience for possible application to the expansion of Canada's Air Reserve.



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BIOGRAPHICAL SKETCH

Lieutenant Colonel Westrop was born in Ottawa, Canada in 1947 and received his initial education there and at several locations abroad. He joined the Royal Canadian Air Force in 1965, and was enrolled as an officer cadet at the Royal Military College, Kingston. He graduated with a Bachelor of Engineering degree in 1969.

In 1970 he completed flight training, and following fighter qualification training, was posted to 439 Squadron in Baden-Soellingen, West Germany to fly the CF-104 Starfighter. He subsequently held positions at 1 Canadian Air Group Headquarters in Lahr, 2 Canadian Forces Flying Training School in Moose Jaw, and 14 Training Group Headquarters, Central Flying School and Air Command Headquarters in Winnipeg.

Lieutenant Colonel Westrop completed CF Staff School in 1976 and CF Command and Staff College in 1984. He is currently a student at the Air War College, and is pursuing postgraduate studies in public administration at Auburn University, Montgomery.

TABLE OF CONTENTS

| CHAPTER | PAGE |
|--|------|
| DISCLAIMER | ii |
| EXECUTIVE SUMMARY | iii |
| BIOGRAPHICAL SKETCH | iv |
| I INTRODUCTION | 1 |
| II CANADIAN RESERVE FORCES | 7 |
| Canada's Reserve System | 7 |
| Air Reserves - The RCAF Auxiliary | 9 |
| The Air Reserve | 11 |
| III THE U. S. TOTAL FORCE | 14 |
| The Total Force Concept | 14 |
| U. S. Reserve Forces. | 16 |
| IV THE TOTAL FORCE USAF | 20 |
| Reserves in the Total Force USAF. | 20 |
| The Air National Guard. | 24 |
| The Air Force Reserve | 27 |
| V TOTAL FORCE - INFERENCES FOR CONSIDERATION | 30 |
| Active-Reserve Cost Comparisons | 30 |
| Reserve Incentives | 34 |
| Guard-Reserve Considerations. | 39 |
| VI CONCLUDING MATERIAL. | 41 |
| NOTES | 46 |
| BIBLIOGRAPHY | 50 |

CHAPTER I

INTRODUCTION

On June 5, 1987, Perrin Beatty, the Minister of National Defence, unveiled Canada's latest defence white paper in the House of Commons. **Challenge and Commitment - A Defence Policy for Canada**¹, was greeted with general enthusiasm, for it promised renewed direction and support for the Canadian Forces. After years of neglect under Liberal defence policies, it appeared there could be hope that the operational capabilities of the Canadian Forces would finally be restored.

The last white paper on defence had been issued in August 1971, and resulted in major reductions in the strength and capabilities of the Canadian Forces.² The only Canadian aircraft carrier was retired, Canada's contribution to NATO was reduced by over one half, and the strength of the Regular Force was reduced by 17,000 personnel to a strength of approximately 78,000.

The defence budget was frozen for several years, and subsequently increased slowly, but at rates below inflation. Major problems in capital acquisition funding, exacerbated by the personnel cutbacks, resulted in reduced operational capabilities, while concomitant reductions in the roles and missions assigned to the Canadian Forces did not occur. Increasingly, a gap developed between the commitments assigned to the Canadian Forces, and its capability to meet them.

In its first defence paper, the new Conservative government reaffirmed that the main objectives of Canadian defence policy can,

"only be met within the collective framework provided by the North Atlantic Treaty Organization."³ The government also recognized that as presently constituted, the Canadian Forces are incapable of meeting all their commitments within the alliance, and acknowledged in the white paper that, "Even if the Canadian Forces were fully manned and had modern, state-of-the-art equipment, to fulfil existing defence commitments would be a daunting challenge."⁴

The primary deficiency is in combat equipment. Insufficient funding for capital acquisitions since the mid-1960's has created a "bow wave" of deferred procurement. Modernization programs have not kept pace with obsolescence. If allowed to continue, this deferred procurement would lead to the "rust out", or pervasive deterioration, of the major military equipment of the Canadian Forces.⁵

Major equipment purchases are required to allow each of the components to meet its wartime commitments. As revealed in the white paper, "the air force suffers from a serious shortage of air transport to move troops and equipment to Europe in times of tension and to sustain them during hostilities. They have too few maritime patrol aircraft."⁶ While the government has already initiated programs to correct some deficiencies, "the results of decades of neglect can be overcome, but it will require a long-term solution: a steady, predictable and honest funding program based on coherent and predictable political leadership"⁷

The second major shortfall is in personnel. A 1982 Senate Committee report on manpower in the Canadian Forces, concluded that 108,000 personnel would be required at the outbreak of hostilities to meet all commitments.⁸ At that time, Canada's Regular Force numbered

approximately 80,000, and the Senate report recommended as a first step in matching commitments, an increase to 92,000 personnel should be undertaken by 1987.⁹ Due to fiscal considerations, a more modest increase of 5,000 Regular Force personnel was approved by the government, and figures for 1987 indicated that the Canadian Forces had expanded to 85,750.¹⁰

In spite of campaign promises to attain the manpower goals of the Senate report, the Conservative government is facing similar fiscal constraints as its Liberal predecessors. While "the government has decided to alter some commitments to bring them into line with resources",¹¹ these changes are insufficient to eliminate all personnel deficiencies, and the commitment-capability gap continues to exist. The government proposes to address this problem through increased emphasis on the Reserve Forces. This will involve both expansion of the Reserve Force, and adoption of the Total Force concept.

In elaborating on this approach, the white paper provides the following rationale:

It is now clear that it is both impractical and undesirable to try to meet all of our personnel requirements through the Regular Force. The costs attached to an all volunteer force have become too high. In many cases the tasks which the Regulars are called upon to undertake can be carried out by trained Reserve personnel. Furthermore, we will be able to address the serious multiple tasking problem now facing the Regular Force if appropriate numbers of trained Reservists are available.

If the Reserve Force is to be used fully and effectively, the distinction between Regular and Reserve personnel must be greatly reduced. Their responsibilities must be integrated into a Total Force Concept. For example, a unit responding to an emergency could be manned by any mix of Regulars and Reservists. The proper ratio for a specific commitment would be determined by the type of unit, reaction time and skills needed. If we are to rely to a greater degree on

Reserves to augment the Regular Force, the size of the Reserves will have to be significantly increased, and their training and equipment substantially improved.¹²

The term Total Force is not new to the Canadian Forces. In his 1983/84 Defence Estimates, Liberal Minister of National Defence Gilles Lamontagne acknowledged that:

...our forces must be improved in terms of sustainability- that is in terms of our capacity to reinforce them, to provide supplies and to keep them up to strength in battle. This will, over time, have a considerable impact on our force structure, leading to a new emphasis on a "total force" concept. The "total force" includes the regular Force and all the sub-components of the Reserve Force. It is recognized that the Regular Force on full-time service would, in an emergency, undertake only limited tasks for a relatively short time without augmentation. Any wartime commitment of significant size or duration would require additional personnel from the Reserves.¹³

While the wording may be similar, considerably more is involved than merely a format change from "total force" to Total Force. A major realignment of forces is called for by the government's proposal of a Total Force posture for the Canadian Forces. Where the 1983 "total force" envisaged the role of the Reserves primarily as augmenting the Regular Force only in emergencies, or wartime undertakings of significant duration, the 1987 Total Force proposes that "the Reserve Force will be developed not only to augment the Regular Force, but also to take on specific tasks."¹⁴

An equally significant change in the posture of the Canadian Forces is the recognition by the government that to accomplish this new concept, will require that the Reserve must be substantially increased, "to about 90,000."¹⁵ A specific breakdown of numbers for each of the components is not detailed in the white paper, however the Director of Air Requirements (DAR) has indicated that the Air Reserve

is to expand dramatically, from the current 950 to "over 8000".¹⁶

The first phase of the Air Reserve expansion is to be linked to the purchase of additional Hercules aircraft, and the "integration of Air Reserve personnel into air transport operations".¹⁷ This DAR proposal is consistent with the direction of the white paper, which indicates that "the Air Reserve will be more closely linked with the Regular Force through the establishment of a number of integrated Regular-Reserve units."¹⁸

The white paper acknowledges that implementation of the Total Force concept will not be easy, and that a number of additional measures will be required to make the concept a reality. For example:

In order to achieve these objectives, pay and benefits will have to be improved. Resources to increase Reserve recruiting will also be required. Terms and conditions of service must be altered to make it easier for members to serve, and employees will be encouraged to support Reserve service by members of their work force.¹⁹

These measures are necessary, but of themselves are inadequate to address the specific requirements of the major organizations. The feasibility of the proposed expansion, and the practicality of the "integration" of the Air Reserve is of particular concern. Can expansion on such a large scale be accomplished, and more importantly, is "integration" the optimum procedure to achieve the major goals set out in the white paper?

Determining the feasibility, and optimum approach, for the proposed Air Reserve expansion will not be easy. The expansion is well described as "dramatic": the Air Reserve will experience a nearly tenfold increase from the currently authorized 950 personnel to "over 8000". The increase will result in a major shift in the balance of

forces within Air Command. From contributing only four percent of the command's total military strength, the Air Reserve will expand to comprise nearly 35 percent of a Total Force Air Command.²⁰

It has been suggested that the Defence Policy Review, which resulted in the white paper, did not generate any "dramatic new approach for the Air Force," and that existing development plans remain valid. It is not clear, however, that the significance of the Air Reserve increase on Total Force posture has been recognized, and that the potential difficulties in implementing the proposed "integration" have been adequately addressed in development plans.

The new Total Force concept, proposed in the defence white paper, appears to be closely modeled on the current United States policy, first introduced in 1972. The United States Air Force Reserve components, the Air National Guard and Air Force Reserve, are essential elements of the Total Force USAF. They are as combat ready and mission capable as their Regular Force counterparts, and are widely recognized as the epitome of air reserve forces.

If Canada is to develop an effective Total Force air force, the lessons of other air forces should be employed to best advantage. The United States Air Force has had considerable experience, and success, with the employment of Reserve forces in a Total Force concept. What measures were taken to achieve that success, and can they be applied to the expansion of Canada's Air Reserve? Can the USAF reserves serve as a model for Canada's Air Reserve?

CHAPTER II

CANADIAN RESERVE FORCES

Canada's Reserve System

The National Defence Act (NDA) states that the Canadian Forces are but one service comprised of two components, the Regular Force and the Reserve Force. The Reserve Force consists of those members who are not on full-time duty, and is divided into four components. These are: the Primary Reserve, the Supplementary List, the Cadet Instructor List and the Canadian Rangers.

The Supplementary List consists of those members of the Reserve Force who are not required to perform duty or training on a regular basis. It includes ex-Regular force members, ex-Primary Reservists and former cadet instructors who have volunteered to return to service in an emergency. The Cadet Instructor List is comprised of those members of the Reserve Force whose primary duty is the supervision, administration and training of cadets. The Canadian Rangers are some 650, primarily native, members of the Reserves who reside in the sparsely settled northern reaches of Canada.

The Primary Reserve is divided into four discrete organizations: the Militia (Army Reserve), the Naval Reserve, the Air Reserve and the Communications Reserve. Members of the Primary Reserve are normally organized into units or headquarters but there is also a Primary Reserve List of personnel who are not members of specific units. The strength of the Primary Reserve in 1987 is detailed in Table 1.

TABLE 1
Primary Reserve Strength (1987)¹

| Organization | Officers | NCO's | Total |
|---------------|----------|-------|-------|
| Naval Reserve | 768 | 2295 | 3063 |
| Militia | 2694 | 17050 | 19744 |
| Comm. Reserve | 203 | 1363 | 1566 |
| Air Reserve | 260 | 741 | 1001 |
| Total | 3925 | 21449 | 25374 |

Primary Reserve Units are allocated training man-days on the basis of 60 days per person, exclusive of active duty training. In fact, the actual number of training days allocated to an individual depends on the decision of the unit commander, the training requirements of the unit, and budgetary considerations. Members of the Primary Reserve may be ordered to train for a period of 15 days of continuous full time training. Full time service may also be ordered in an emergency.

There are three classes of Reserve service, "A", "B", and "C". Class "A" service applies to a member of the Reserve when performing normal training or duty, in circumstances other than class "B" or "C" service. Class "B" service applies to members of the Reserve on full time duty with the Reserve Force. Class "C" service applies to members of the Reserves who are on extended full time service with the Regular Force, filling Regular establishment positions.²

Air Reserves - The RCAF Auxiliary

Prior to the integration of the three independent services

into the Canadian Forces in 1967. each service included separate Regular and Reserve Forces. The Primary Reserve component of the Royal Canadian Air Force (RCAF) was the RCAF Auxiliary, and the Air Reserve of today is the direct descendent of the Auxiliary which was formed after World War II.

Following the demobilization after World War II, the Canadian government approved a peacetime organization for the RCAF containing four components: the Regular Force, the Auxiliary, a Reserve and the RC Air Cadets. The Regular Force was authorized a strength of 16,000 personnel and eight squadrons, and was intended to constitute a highly trained nucleus for a wartime force, should one be required. The Auxiliary was authorized a strength of 4,500 personnel and 12 squadrons of fighters and fighter bombers, and was to provide a ready reserve of units which could be mobilized with minimum delay. The Auxiliary was to be developed on a par with the Regular RCAF, and for the ensuing decade it enjoyed a high priority in defence measures.

In 1946 the RCAF took delivery of its first jet fighters, deHavilland Vampires, and these were assigned to six of the Auxiliary squadrons. Four Auxiliary squadrons retained their older Mustang aircraft, while the remaining two were equipped with Mitchell light bombers. The Auxiliary squadrons were located in large population centers across Canada, including Toronto (2), Montreal (2), Hamilton, London, Winnipeg, Saskatoon, Calgary, Edmonton and Vancouver (2).

As relations between the Western democracies and the Soviet bloc deteriorated in the mid-1950's, the RCAF experienced a steady expansion. By 1955 its Regular Force strength had reached 51,000

while the Auxiliary had grown to 5,700, and included 29 Regular and 12 Auxiliary flying units. Modern equipment was provided to both components, with the Auxiliary predominantly involved in fighter and fighter bomber roles. New T-33 Silver Star trainers were allocated to the Auxiliary interceptor squadrons in 1955 to prepare them for the Sabre V aircraft introduced in 1956.

In addition to flying squadrons, the RCAF Auxiliary formed specialized support units to back up their own units as well as those of the Regular Force. Eleven Auxiliary Warning and Control Squadrons were formed, initially to man mobile radar sites. These were later converted to permanent sites in the Pinetree radar warning line. Medical, intelligence and technical training units were also formed, and Wing Headquarters were established in cities with two or more Auxiliary Units. In Winnipeg, an air transport medical system was organized, which employed Reserve doctors, nurses and medical assistants throughout the western radar chain.

But in 1958, the government announced a major change in the future employment of all Reserve forces. Changing technology had made it probable that any future war would be of short duration, and would be over before the Reserves would play a part. It was decided that the Reserves could be employed more usefully in civil defence and rescue missions. The RCAF Auxiliary units exchanged their fighter and fighter bomber aircraft for light transports, and control of the Auxiliary passed from Air Defence Command to Air Transport Command.

The most telling blow to the Auxiliary occurred in 1964. Following a defence review, budget cuts and heavy financial constraints caused by re-equipping RCAF NATO forces with the CF-104.

significant cutbacks were imposed. Operational squadrons were reduced to six, equipped with deHavilland Otter aircraft, and the authorized strength was cut to 750.

On 1 February, 1968 the RCAF Auxiliary (and the RCAF), ceased to exist when the three separate armed services were integrated into one, the Canadian Armed Forces. The six remaining flying squadrons and various administrative units were incorporated into the Canadian Forces Reserve, and were assigned to Mobile Command's 10 Tactical Air Group.³

The Air Reserve

The Air Reserve languished for the next six years within the Mobile Command organization. The first positive change for the Air Reserve occurred in 1974 when LGen W.K.Carr, then Chief of Air Operations at National Defence Headquarters, proposed a major re-posturing under the "total force" concept then in vogue. The "augmentation" thesis of the concept would be implemented, through a "twinning" of Regular and Reserve squadrons, utilizing the aircraft assigned to the Regular Force unit.

First implementation of this program occurred when 408 Air Reserve (AR) Squadron twinned with 440 Transport and Rescue (T&R) Squadron at Namao, utilizing Twin Otter aircraft. This was followed by 402 (AR) Squadron at Winnipeg twinning with 429 (T) Squadron on DHC-6 aircraft. Air Reserve Augmentation Flights, primarily for administrative support, were also proposed and subsequently established at several major air bases.

On 1 April 1976 a major reorganization within the Canadian Forces resulted in the formation of a distinct Air Command, to consolidate the majority of air resources under one commander. At the same time, a new formation, Air Reserve Group was established within Air Command. Air Reserve Group was assigned administrative control of all Air Reserve units and personnel, while operational control was exercised by the operational groups to which the units were assigned.⁴

A slight expansion of the Air Reserve occurred in 1977. An increase to 950 authorized personnel permitted the formation of a new reserve squadron, 432 AR Squadron at Shearwater, operating Tracker aircraft and twinned with 880 Sqn. In 1981 the four squadrons at Toronto and Montreal exchanged their Otter aircraft for Kiowa helicopters for employment in the observation/liason role within 10 TAG. While not twinned with Regular Force units, a measure of "total force" operation was achieved in 1987 through the unofficial amalgamation of these units and their Wing Headquarters, with their Regular Support Staffs, into Tactical Aviation Wings. Specific planning for the future includes the changeover of 402 (AR)Sqn in Winnipeg to the Dash 8 aircraft in support of the Air Navigation School

The white paper Total Force concept envisages the expansion of the Air Reserve to include 5,150 Primary Reservists and approximately 3000 Supplementary members. Expansion is to be incremental, with attainment of the goal programmed for the year 2002. Planners anticipate that 15 percent will be on Class B callout of 335 days per year, with the remainder on Class A service, involving about 100 days of service per year.⁵

It is intended that all units in the Air Force be fully integrated, although the proportion of Reserve to Regular Force will vary. For example, the present Air Reserve helicopter squadrons will be manned with up to 90 percent Reserves, while there may only be a ten percent Reserve manning at other units with high peacetime activity.⁶ Discussion has also included the possible integration of the Air Reserve Group Headquarters within Air Command Headquarters.

Concern has been expressed by some Reserve officers that the Total Force will evolve as envisaged because of continuing pressure on the Defence budget. The Reserve Force has traditionally been seriously underfunded. In the 1987-88 Defence Services Program only 3.9 percent of the total budget was allocated to the Reserves. Projected 15 year funding for the Reserves totals \$9.5 billion, but based on previous experience, it is considered unlikely that this funding level will be maintained.⁷ The white paper makes no government commitment to fund implementation of the Total Force.

Implementation will prove challenging, not only from the standpoint of recruiting, training, and funding the additional Reservists, but also from the total integration concept being proposed. This concept differs significantly from anything previously undertaken, and does not appear to be an essential element of a viable Total Force. The total integration of the three former services has been less than the overwhelming success predicted by its implementers: integration of the Air Reserves may be equally inappropriate to achieving the objectives of a Total Force Air Force.

CHAPTER III

THE US TOTAL FORCE

The Total Force Concept

While the term Total Force may have been used in the Canadian Forces, its origin lies in the United States, where it has provided the basis of the organization of the Armed Services since 1970. Following the wind-down of the Viet Nam war, then Secretary of Defence Melvin Laird faced problems resulting from the elimination of the draft and Congressional pressure to reduce the military budget. The solution to this dilemma involved increased reliance on the Reserve components, both as the primary source of expansion in times of crisis, and as augmentation to Active Force units during normal peacetime activities. This concept was labelled the Total Force, and was unveiled in October 1970.¹

In widely quoted correspondence, Secretary Laird explained the rationale and application of the concept as follows:

The President has requested reduced expenditures during fiscal 1970 and extension of these economies into future budgets. Within the Department of Defence, these economies will require reductions in overall strengths and capabilities of Active Forces, and increased reliance on the combat and combat support units of the Guard and Reserves. I am concerned with the readiness of Guard and Reserve units to respond to contingency requirements, and with the lack of resources that have been made available to Guard and Reserve commanders to improve Guard and Reserve readiness.

Public Law 90-168, an outgrowth of similar Congressional concern, places responsibility with the Secretaries of the Military Departments for recruiting, organizing, equipping and training of Guard and Reserve forces. I desire that the Secretaries of the Military Departments provide, in the FY 1972 and future budgets, the necessary resources to permit the appropriate balance in the development of Active, Guard and Reserve forces.

Emphasis will be given to concurrent considerations of the total forces, Active and Reserve, to determine the most advantageous mix to support national strategy and to meet the threat. A total force concept will be applied in all aspects of planning, programming, manning, equipping and employing Guard and Reserve forces. Application of the concept will be geared to the recognition that in many instances the lower level peacetime sustaining costs of Reserve force units, compared to similar Active units, can result in a larger total force for a given budget, or the same size force for a smaller budget. In addition, attention will be given to the fact that Guard and Reserve forces can perform peacetime missions as a byproduct or adjunct to training with significant manpower and monetary savings.²

In effect, the policy integrated the National Guard and Reserves with the Active forces in the major areas of force structure, operations and mobilization. As a component of the Total Force, the structure of the Reserve forces was subsequently detailed in Title 10, United States Code 252 as follows:

The purpose of each reserve component is to provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency and at such other times as the national security requires, to fill the needs of the armed forces whenever, during, and after the period needed to procure and train additional units and qualified persons to achieve the planned mobilization, more units and persons are needed than are in the regular components.

The policy's basic tenet is that the Guard and Reserve constitute the primary augmentation for the Active forces in all military operations. Furthermore, adequately trained and equipped Reservists, not conscripts, have become the initial source of additional military manpower in the event the U.S. Armed Forces must expand in war.

The Total Force policy brought to the fore several implicit aspects of the United States's defence posture. Notably, the United States would not mount and sustain a significant military operation without the active involvement of the Reserve forces. Constraints on

the military budget required that an increasingly large portion of the nation's military strength reside in the Reserve forces.

Under the Total Force policy, all elements of the U.S. Armed Forces, both Active and Reserve components, are considered to be a part of the United States military resource. Application of the Total Force policy transformed the Reserve components, the Guard and Reserve, into one of the world's most powerful military forces, and a major contributor to the United States military capability.

United States Reserve Forces

The Reserve forces of the United States consist of seven main components: the Department of Defence controls six, while the Department of Transportation controls one, the Coast Guard Reserve. The Department of Defence components are the Army National Guard, the Army Reserve, the Naval Reserve, the Marine Corps Reserve, the Air National Guard (ANG) and the Air Force Reserve (AFRES). While the Reserve operates exclusively under federal control for national defence purpose, the National Guard are nominally under the control of their State Governors, except when preempted by the President.

The Reserve components are subdivided into three categories: the Ready Reserve, the Standby Reserve and the Retired Reserve. The Army National Guard and Air National Guard consist almost entirely of formed units and incorporate personnel of only one category, the Ready Reserve.³ The main characteristics of the three categories are as follows:

Ready Reserve. The Ready Reserve comprises Reserve Component units, individuals assigned to active component units, and individuals

subject to recall on active duty to augment the Active Force in times of war or national emergency. The Ready Reserve is divided into four sub-groups: the Selected Reserve, the Individual Ready Reserve, the Inactive National Guard and the Training Pipeline.

The Selected Reserve (SR) is composed of those units and individuals designated by their respective service as so essential to initial wartime missions that they have priority for training, equipment and personnel, over all other reservists. Individual members of the Selected Reserve, not assigned to a Reserve unit, are called Individual Mobilization Augmentees (IMA), and are trained and assigned either to Active Force, Selective Service or Federal Emergency Management Agency positions that must be filled on, or shortly after, mobilization.

The Individual Ready Reserve (IRR) is primarily a manpower pool of trained individuals who have previously served in either the Active Force or the Selected Reserve. IRR members are liable to perform active duty for training, and for fulfillment of mobilization requirements.

The Inactive National Guard (ING) consists of only Army National Guard members who are attached to National Guard units, but who have no obligation to participate in normal training activities. They must report to their units annually, and would mobilize with them.

The Training Pipeline are those members of the Ready Reserve who have not yet completed their initial active duty training. All Ready Reservists must receive training in their intended wartime

assignments for a prescribed period, and by law may not be called to active duty outside the United States until they have completed that training.

Standby Reserve. Personnel assigned to the Standby Reserve have completed all obligatory service, or have been removed from the Ready Reserve because of civilian employment, temporary hardship or disability. Standby Reservists maintain military affiliation, but are not required to perform training or to be assigned to a unit.

Retired Reserve. The Retired Reserve list is composed of personnel who have been placed on retired status based on the completion of their Reserve or Active component service. Retired Reservists do not normally undertake any training or periods of active duty.

While all segments of the Reserve components are subject to mobilization during war or emergency declared by the President or Congress, it is the Selected Reserve that is the mainstay of the Reserve Force, and which augments the Active Force on a day-to-day basis. Selected Reservists are assigned to units, conduct regular monthly and annual active duty training and will be the first to be mobilized. As the primary source of timely augmentation for the Active Force, the Selected Reserve receives major attention within each service.⁴ The strength of the Selected Reserve components from 1974 through 1987 is depicted in Table 2.

TABLE 2
Selected Reserve Strength^a
(in thousands)

| | 1974 | 1976 | 1978 | 1980 | 1982 | 1984 | 1986 | 1987 |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| ARNG | 403.4 | 362.2 | 341.0 | 366.6 | 407.6 | 434.3 | 446.2 | 451.8 |
| USAR | 234.9 | 194.6 | 185.8 | 213.2 | 256.7 | 275.1 | 309.7 | 313.6 |
| USNR | 114.9 | 97.0 | 82.8 | 97.1 | 104.8 | 120.6 | 141.5 | 148.1 |
| USMCR | 31.2 | 29.6 | 32.7 | 35.7 | 40.5 | 40.6 | 41.6 | 42.3 |
| ANG | 93.9 | 91.0 | 91.7 | 96.3 | 100.7 | 105.1 | 112.6 | 114.5 |
| AFRES | 46.4 | 48.4 | 53.9 | 59.8 | 64.4 | 70.3 | 78.5 | 80.4 |
| S TOT | 140.3 | 139.4 | 144.6 | 156.1 | 175.1 | 175.4 | 191.1 | 195.0 |
| TOTAL | 924.7 | 822.8 | 787.9 | 868.7 | 974.7 | 1046.0 | 1130.1 | 1150.8 |

CHAPTER IV
THE TOTAL FORCE USAF

Reserves in The Total Force USAF

The USAF Reserve Forces today present a textured picture of success for the Total Force policy. As specified in Air Force Regulation (AFR) 45-1, Reserve Forces:

1. Air National Guard and Air Force Reserve units and individuals, as part of the total US Air Force capability, are the initial and primary source of augmentation forces in any emergency that requires rapid and substantial expansion of US Air Force combat capability. Under this policy, and because many of these units represent the US Air Force initial capability, it is essential that these forces be staffed, trained, and equipped with the resources required to meet their wartime tasking.

5. The mission of the two components is to train and provide combat flying units, combat support units, and qualified personnel for active duty in the Air Force:

- a. To support wartime requirements
- b. To perform such peacetime missions as are compatible with Guard and Reserve training requirements and the maintenance of mobilization readiness.
- c. To conduct training in support of Total Force capabilities.

Consistent with this Total Force policy, as many contributors to the total Air Force, the strength and capabilities of the Reserve forces have increased significantly. Units of the Air National Guard and Air Force Reserve ended 1987 at all time high strengths of 114,595 and 153,182 respectively. The breakdown of this total Reserve manpower is depicted in Table 3.

TABLE 3
Air Force Total Reserve Manpower (1987) ^a

| | | | | | | |
|------------------|---------|---------|----------|-----------------|-----------------|--------|
| | ANG | 114.595 | | | | |
| | AFRES | 153.182 | | | | |
| ----- | | | | | | |
| Ready Reserve | | | | Standby Reserve | | |
| ANG | 114.595 | | | ANG | 0 | |
| AFRES | 128.703 | | | AFRES | 24.479 | |
| ----- | | | | | | |
| Selected Reserve | | | IRR/ING | | | |
| ANG | 114.595 | | ANG | 0 | | |
| AFRES | 80.415 | | AFRES | 48.288 | | |
| ----- | | | | | | |
| Trained | | | Training | | Retired Reserve | |
| ANG | 111.136 | | ANG | 3.459 | ANG | 0 |
| AFRES | 77.970 | | AFRES | 2.445 | AFRES | 54.207 |

The increasing importance of the contribution made by the Selected Reserve components to the Total Force Air Force is reflected in Table 4

TABLE 4
Air Force Total Force Manpower^a
(in thousands)

| Component | 1976 | 1980 | 1982 | 1984 | 1986 | 1987 | 1988 | 1990* |
|------------|------|------|------|------|------|------|------|-------|
| ANG | 91 | 96 | 101 | 105 | 113 | 115 | 115 | 116 |
| AFRES | 48 | 60 | 64 | 70 | 79 | 80 | 82 | 85 |
| Res. Total | 139 | 156 | 165 | 175 | 192 | 195 | 197 | 201 |
| Active | 585 | 558 | 583 | 597 | 608 | 607 | 576 | 571 |
| Tot. Force | 724 | 734 | 748 | 772 | 800 | 802 | 773 | 772 |
| Reserve | 19.2 | 21.2 | 22.0 | 22.6 | 24.0 | 24.3 | 25.2 | 26.0 |

* Planned

These figures indicate the increasing emphasis the USAF has placed on the contribution of its Reserves to the Total Force. Not

only has the total size of the Reserve component increased since 1976, but its contribution to the Total Force has also increased relative to the Active Force. From comprising 19.2 percent of the USAF Total Force in 1976, the Selected Reserves will have expanded by 62,000 personnel in 1990, to provide 26 percent of the USAF Total Force.

Evidence of the degree of success enjoyed by the USAF, relative to other services, in implementing the Total Force concept and expanding the two Air Force components of the Selected Reserve is revealed in the figures at Table 2 in chapter II. While the overall strength of the Selected Reserve decreased by nearly 15 percent from 1974 through 1978, the strength of the Air Force components increased by more than 3 percent. Furthermore, while the overall strength of the Selected Reserve increased by 24.5 percent from 1974 to 1987, the Air Force components increased by 39.0 percent.

Policy on the organization and operation of the Reserve components of the total Air Force is also detailed in AFR 45-1:

3.a.(3). Within the Department of the Air Force, the Total Force Policy will be part of all planning, programming, staffing, equipping, and employing of Active and Reserve Components. The structuring of the ANG and USAFR units will parallel similar active force units. Training and evaluation of ANG and USAFR units will be conducted applying the same standards as active units insofar as possible. Equipping, supporting, and exercising Active and Reserve components will be accomplished in compliance with Total Force Policy.⁴

A measure of the success achieved by the USAF in implementation of the Total Force Policy is evident, in that ANG and AFRES units have repeatedly demonstrated their capability to mobilize and deploy within 72 hours. Using the standards applied to Active USAF units, operational readiness inspections have consistently

confirmed the operational capability of Reserve units.

In the Total Force Air Force, the Air Force Reserve provides nearly 50 percent of the strategic airlift crews for the C-141 and C-5 aircraft, and provides 40 percent of the maintenance capability for these aircraft. The Reserve also furnishes 50 percent of the crews for the new KC-10 aerial refuelling tanker-transport. In the event of full scale augmentation of NATO, approximately 50 percent of all Air Force augmentation would be provided by the Reserve forces.

In addition to this considerable mobilization force, a number of daily missions are performed on a regular basis by units and individuals of the Air Force Reserve and the Air National Guard. ANG units maintain interceptors and crews on around the clock peacetime alert status within NORAD, while AFRES tanker crews are holding similar alert in support of SAC alert bombers. Units in the MAC Associate transport program, as well as ANG and AFRES dedicated transport squadrons, regularly carry out peacetime taskings. Fully one half the air defence interceptor alert sites, and 65 percent of the Air Force air defence interceptors are provided by the Air National Guard.

The Reserve Forces are also, in some instances, the primary source of military capability. The Air National Guard is solely responsible for the air defence of the Hawaiian Islands, and with the Air Force Reserve, provides the majority of the air assets to the US Southern Command in Panama.

The overall contribution of the Reserve forces to the total USAF combat capability is significant. The contributions of the ANG and AFRES, as a percentage of the USAF total, are shown in Table 5.

TABLE 5
Reserve Contribution to USAF Total Force (1987)^a

| Flying Units | ANG % of Tot | AFRES % of Tot | RES % of Tot |
|------------------------|--------------|----------------|--------------|
| Aerial Spraying | 0 | 100 | 100 |
| CONUS Interceptor | 78 | 0 | 78 |
| Tactical Airlift | 35 | 25 | 60 |
| Tactical Recce | 54 | 0 | 54 |
| Special Operations | 0 | 17 | 17 |
| Air Rescue/Recovery | 14 | 24 | 38 |
| Tactical Fighters | 25 | 8 | 33 |
| Tactical Air Support | 40 | 0 | 40 |
| Weather Reconnaissance | 0 | 28 | 28 |
| Support Aircraft | 19 | 0 | 19 |
| Aerial Refuelling | 17 | 4 | 21 |
| Strategic Airlift | 4 | 6 | 10 |
| Aircrews | | | |
| Aeromedical Evac. | 31 | 72 | 93 |
| Strat Airlift (Assoc) | 0 | 50 | 50 |
| Tanker/Cargo (Assoc) | 0 | 50 | 50 |
| Aeromedical Airlift | 0 | 30 | 30 |

With this summary of the impact of the combined Air Reserve components on the Total Force USAF, it is instructive to review the background and evolution of each of the components individually.

The Air National Guard.

Following World War II, the Secretary of War approved plans calling for the reorganization of the National Guard, with a dual mission and status. The National Guard of the United States was to be a mobilization force, fully trained and equipped for immediate service. The National Guard of the various states was to provide the organization and personnel for the federal reserve component, and was intended to preserve peace, order and public safety within their

respective states. The Federal Government was to be responsible for training facilities, pay, uniforms, equipment and ammunition, and was to contribute to the construction of National Guard facilities.

The first post war National Guard units were granted recognition in 1946, including the first air unit, the 120th Fighter Squadron of Colorado. With the formation of the United States Air Force, a new reserve component, the Air National Guard was also officially established on September 18, 1947.

At the outbreak of the Korean War, some 45,000 Air National Guardsmen were called to active duty. Air Guard units called up included 22 wings and 66 tactical squadrons. Of the squadrons activated, 19 were fighter, two were light bomber, and one was reconnaissance. Four of the U.S. jet aces in the Korean War were members of the ANG.

Because of problems encountered in mobilizing ANG (and AFRES) reservists, caused by deficiencies in personnel administration, the USAF established the Air Reserve Records Center in Denver, Colorado in 1953. This agency was charged with implementing a centralized and standardized system of personnel records for all Air Force reservists, both ANG and AFRES. Congress assisted by passing the Armed Forces Reserve Act of 1952, which standardized pay and training categories, and established Ready, Standby and Retired mobilization categories. This was followed by the Reserve Forces Act of 1955 which doubled the size of the Ready Reserve, imposed the obligation to train, and authorized the recruitment of non-prior reserve personnel into the Reserves.⁶

In spite of these changes, difficulties with maintaining reserve force readiness capabilities continued. To solve these problems, an Air Staff committee recommended the introduction of the Air Reserve Technician Program. The Civil Service Commission accepted this proposal, and the program was implemented in 1958. It provided a permanent cadre of civil service "technicians", civilian personnel who were employed full-time, but were also military members of their Reserve units. Implementation of this program also had the effect of releasing a large number of active service members for reassignment with Active Force Units.²

During the Berlin crisis of 1961-62 many ANG units were mobilized, including 17 TAC fighter squadrons, one TAC reconnaissance squadron, six C-97 transport squadrons, one TAC control group and other supporting elements. Within one month of mobilization, 22,000 ANG personnel and 26 aircraft had deployed to Europe.

During the Viet Nam war no major callup of ANG units occurred, however in June 1968, 11 ANG units were ordered to active duty following the seizure of the Pueblo and the start of the Tet offensive. Some 10,000 Air Guardsmen were activated, and over 2000 were deployed to the combat zone. An additional 4000 Air Guardsmen were deployed to Korea, where they provided 60 percent of the total air power available.

The ANG underwent major changes in missions and aircraft during the 1970's following implementation of the Total Force concept. Phased out of the ANG inventory were the C-124 Globemaster and C-121 Constellation cargo aircraft, KC-97 aerial refuelers and F-100 fighters. Replacing these were first line C-130 Hercules cargo

aircraft. KC-135 tankers and A-7 and A-10 tactical fighters.

During the 1980's modernization and expansion of the ANG continued. New aircraft introduced into the inventory included C-141 and C-5 transports, and F-15 and F-16 fighters. The ANG currently constitutes approximately 30 percent of the Total Force USAF strength, with over 114,600 personnel and 1,800 aircraft.⁶

Air Force Reserve

The Air Force Reserve was created on April 14, 1948 as a consequence of the Air Force attaining separate status, and the Continental Air Command, headquartered at Mitchell Field, New York, was established to run it. The Air Force Reserve was originally conceived as a filler, providing the difference between the required Air Force total strength, and what the Active Air Force and Air National Guard could provide.

With the outbreak of the Korean War, a large number of Air Force Reservists were called to active duty. By the time the conflict ended, all 25 Air Reserve wings had been recalled, as well as over 118,000 individual reservists. In all some 147,000 Air Force Reserve personnel were mobilized to augment the Active Air Force.

A major restructuring of the Air Force Reserve occurred during the post-Korean War period. As a result of problems encountered in mobilizing and employing Air Reservists, the Air Force Chief of Staff appointed a top level board to investigate the deficiencies. The board, which included senior members of the Air National Guard and the Air Force Reserve, concluded that of the two

components:

...the Air National Guard is working to greater effectiveness than the Reserve. There are certain fundamental differences between the two components, and comparisons can only be made between Reserve Wings and Air National Guard Wings. The greater percentage of the Reserve personnel, because of technical qualifications and the geographical location of their domiciles, is precluded from joining these wings. Therefore, many cannot be trained except through the medium of self-training courses or correspondence. No fundamental facts were established to show that comparable parts of the Air National Guard and the Reserves could not be trained to an equally effective basis, provided that each had comparable facilities."⁹

Commenting on the report, the chairman, LtGen Leon W.

Johnson noted that:

It quickly became apparent that the Guard were doing a better job in organized units than the Reserve. We tried to pinpoint the reason; we considered facilities, we considered the budget, and all the other factors we could, but the only one that seemed conclusive was pride in the existence of, and close support for, a local unit. We concluded that there is no reason why the Air Reserve could not become as effective, with proper supervision and support.¹⁰

As a result of the board's recommendations, and in accordance with the Chief of Staff's policy statement in 1955, development of combat-ready units was emphasized in the Air Reserve. Two years later the Air Reserve Technician program was instituted to provide each unit with a cadre of permanent, skilled personnel for continuous employment and immediate availability in the event of mobilization.

During the buildup of forces during the Berlin crisis in 1961, the Air Force Reserve contributed two troop carrier wings, as well as nearly 3,500 individual reservists. In all approximately 5,600 Air Reserve members served during this crisis. Shortly afterwards, the Cuban missile crisis erupted, and eight troop carrier and six aerial port squadrons, over 14,000 personnel in total, were called to active

duty.

Although there was no formal callup, in 1965 Air Force Reserve personnel began operation of C-124 transport aircraft in support of the Viet Nam war, and routinely flew MAC missions to and within Southeast Asia. In 1968 the callup following the Tet offensive resulted in two transport wings, five groups and several ancillary units being called to active service. Further reorganization also occurred in 1968, as the Continental Air Command was replaced by the Air Force Reserve Headquarters at Dobbins AFB, and the Reserve Associate airlift program was inaugurated in MAC at Norton AFB.

During the 1970's, the Air Force Reserve began an equipment modernization program as a result of the implementation of the Total Force concept. C-119 and C-124 transports were removed from the AFRES inventory, and were replaced with the C-130 Hercules. Reserve Associate units began operating MAC C-141 transports of the Active Force, while some AFRES units converted to KC-135 tankers in support of SAC's strategic forces.

Entering the 1980's, the AFRES transitioned to a truly multi-mission force, with an inventory that includes KC-135's, AC.HC.WC and C-130's, C-141, C-5 and C-9 transports, KC-10 tankers and F-4, A-10 and F-16 fighters. The Air Force Reserve in 1987 operated 466 aircraft in 57 units, and had a strength of over 79,000 Selected Reserve personnel.¹¹

CHAPTER V

TOTAL FORCE - INFERENCES FOR CONSIDERATION

Active - Reserve Cost Comparison

The basic rationale for maintaining Reserve forces rests on economic grounds. If resources were unlimited, enough Active forces could be maintained to meet all possible contingencies. Or, if forward deployments or rapid responses were not necessary, hypothetically nearly all forces could be Reserves. Since neither is the case, then some mix of Active and Reserve forces provides maximum military capability within a given budget, or alternatively, provides a given level of capability at minimum cost. General economic theory should provide the capability for determining an optimum mix: in practice this is difficult to achieve because of difficulties in defining the relative costs, and capabilities of Active and Reserve force mixes.

Generally, the peacetime cost of operating a Reserve unit is less than that for a similar Active unit. This occurs because: (1) Reserve military personnel are employed only part time, and thus receive less total compensation than do their Active counterparts, (2) activity rates for Reserve units are less than for similar Active force units, and thus incur lower operations and maintenance costs, and (3) Reserve forces are generally provided with fewer personnel services and facilities than full time Active duty forces.

Estimates of savings resulting from placing military units in the Reserve rather than the active component are made by comparing current costs of similar units in the Active and Reserve force. These

studies show that savings vary widely, and are directly related to the type of unit, required activity level and mobilization capability.

Units where the capital/labour ratio is high, where readiness requires high activity levels and mobilization requirements dictate complete holdings of combat equipment, as in typical air force flying units, show savings of only 25 to 33 percent for Reserve units. Whereas labour intensive units, such as typical army infantry units, with low levels of activity and relatively lower holdings of combat equipment, can show savings of as much as 70 percent over Active force units.¹

These savings flow from the reduced personnel and operating costs attributable to the lower activity rate in the Reserve force, as equipment costs for comparable units will be similar whether in the Active or Reserve force. However, if increases in total force capability are to be achieved by a change of Active/Reserve mix through expansion of the Reserve, then acquisition costs for additional equipment may negate any savings attributable to reduced personnel and operating costs.

Simple comparisons may also overlook the large number of full time civilian and military personnel associated with Air Reserve units, necessary to service and maintain the complex equipment, and who carry out administrative and training functions. In the Selected Reserve air components, full time "technicians" make up approximately 17 percent of personnel overall: in units holding full time alert nearly 30 percent will be on full time status. Typically, in the Army Reserve components the full time personnel will be in the

order of 4 percent.²

During the mid-1950's, it was recognized by the Air Force leadership that continuity of expertise, training, maintenance and administration suffered when carried out only by part time personnel. It was also considered inefficient to use valuable Reserve training time to perform everyday housekeeping duties. For these reasons it was decided to make use of larger numbers of fulltime support personnel, who now provide the backbone for the administration, maintenance, recruiting and training of the Air Force's Reserve components.

Except for some civil service employees in purely civilian roles, each of the full time support members also fills a military position within the Reserve unit's organization. Full time support personnel include the following:

Active Component. Personnel assigned from the Active Force who provide current experience with Active component equipment, operational and tactical doctrine and training techniques.

Reserve Component on Active Duty. Full time personnel from the Reserve component who provide Reserve component expertise and assignment flexibility. Generally known as Active Guard/Reserve (AGR).

Military Technicians. Dual status individuals who work full time as civilians for the federal civil service in Reserve component units, and who also hold the status of drilling reservists.

Civil Service. Members of the civil service who provide clerical and administrative support at all levels, but who have no requirement to belong to the Reserve component.

The strength figures for these personnel are detailed in Table 6.

TABLE 6
Full Time Support Personnel ^a

| Component | Active | AGR | Civ.Ser | Mil.Tech | Total |
|-----------|--------|-------|---------|----------|--------|
| ANG | 719 | 7,098 | 2,496 | 22,005 | 32,318 |
| AFRES | 639 | 612 | 4,825 | 8,348 | 14,424 |
| Total | 1,358 | 7,710 | 7,321 | 30,353 | 46,742 |

Studies of comparative Active/Reserve costing indicate that while substitution of reserve for active forces will lead to savings, for the Air Force these are less than generally perceived. For it appears to be the case that equivalent readiness in Active and Reserve units can most easily be maintained where savings differences are the least. While significantly larger savings are generated in Reserve army units than air units, more uncertainty exists in achieving equivalent readiness levels in army units than air force units.

Table 7 provides an example of the cost differential between an A-7D squadron in the Active Force compared with the same type of unit operated by the Air National Guard. According to the data presented, the cost of forming and operating an ANG squadron over a ten year period is 32 percent less than for an equivalent active duty unit. As an A-7D unit does not hold full time alert, it may be presumed that savings are greater than for units involved in that activity.

TABLE 7
Active-Reserve A7-D Squadron Cost Comparison
(Costs in millions)(1979 Figs)⁴

| Cost Items | Active | ANG | Savings |
|--|---------|---------|---------|
| Capital Equipment | \$107.2 | \$107.2 | 0% |
| Annual Operating | \$21.2 | \$11.0 | 48% |
| Ann. Facilities | \$8.4 | \$5.8 | 31% |
| Ann. Personnel | \$12.8 | \$5.2 | 59% |
| Capital Equipment + 10 Year Operating | \$319.2 | \$217.2 | 32% |

Reserve Incentives

Following implementation of the Total Force policy, a number of measures were instituted by the U.S. Armed Forces to ensure that they could attract and retain the number of quality personnel required for their Reserve Forces. All aspects of compensation were examined by various committees, and improvements are continuing to be introduced. The following is a summary of the factors considered to have a bearing on the success of the Total Force concept.

Pay and Allowances.

United States Reserve Force pay rates are essentially the same as Active Duty rates, pro rated on a daily/drill period rate of 1/30th of the Active Duty monthly salary or allowance. Part-time reservists must attend, and are paid for 48 drill periods, plus fourteen days of active duty annually. Drill periods must be at least four hours in duration, with a maximum of two scheduled in a single day, four in a weekend. At normal activity rates reservists could

drill for one weekend per month and undertake active duty training for two weeks, to receive compensation for sixty two days, or slightly over two months pay at Active Duty rates. Reservists assigned to some positions, particularly in flying units, are assigned additional paid drills over the basic 48, in order to maintain their qualifications or to support unit activity rates.

In addition to the pay that is received for weekend drills and active duty for training, many reservists are also eligible for additional pay for special skills or qualifications. Flight qualified members assigned to flying units and filling positions as flight crew members are entitled to receive flight duty allowances at the same rates as Active Duty members. Reserve medical, dental and veterinary officers are entitled to the same specialist pay as active duty members, while some qualified reservists receive the appropriate incentive pay for hazardous duty.⁵

Selected Reserve Incentives.

In order to attract and retain qualified reservists in the Selected Reserve, a number of incentive programs have been introduced over the years. Incentive pay may be granted to a person who enlists in a component of the Selected Reserve for a term of six years. Eligible individuals are those who have graduated from high school, or who are in their senior year at the time of application.

The amount of the enlistment bonus varies by military specialty, up to a maximum of \$2000. Payment of the bonus is one half on completion of initial active duty for training, one fourth on completion of the fourth year of duty, and the remainder on completion

of the prescribed term.

An educational entitlement is also available to members of the Selected Reserve under the GI Bill. Benefits may be paid to eligible members who complete their initial period of active duty for training and at least 180 days of service in the Selected Reserve. The GI Bill provides money for undergraduate programs at approved institutions at rates of \$140 per month for full time school enrolment, \$105 per month for three quarters and \$70 per month for half-time enrolment, to a maximum of \$5040.

Reservists who have completed their initial term and who have less than nine years of total service are eligible for a reenlistment bonus. The bonus may be paid for reenlistments of either three or six years, in particular skills or units. The maximum amount of the bonus is \$900 for a three year reenlistment, or \$1800 for six years.

Members of the Reserves are eligible for numerous other federal benefits and entitlements. Benefits include Serviceman's Group Life Insurance, military exchange privileges, medical care during and while travelling to and from drill, access to military clothing sales outlets, base recreation facilities, open messes, and transient billets if space is available.

Reservists also enjoy several tax benefits. They may deduct the cost of transportation directly between civilian employment and drill, meals and lodging expenses in excess of allowances received, expenses incurred in procuring, tailoring and cleaning military uniforms, and dues for membership in Reserve associations and

professional societies. Some states also provide additional exemptions to reservists with respect to income tax on reserve pay.⁶

Civilian Employment Rights.

Various provisions of law guarantee Reservists special rights in relation to their civilian jobs and place of residence. Chapter 43, Title 38 of the U.S. Code specifies reemployment rights. These entitle an individual proceeding on active duty for not less than three months to reinstatement in his original position, or to a job of like pay grade, with such seniority, status pay and vacation as he would have enjoyed had he not been absent on military duty.

The law was enacted in the early 1940's to ensure that veterans would have reemployment rights when they were released from active duty. It was amended in 1974 to extend coverage to Guard and Reserve members who were employed by state and local governments. In 1976 it was further amended to provide full employment rights and benefits to any member of the reserve component ordered to active duty for not more than 90 days.

In addition to reemployment rights for periods of active duty, the law provides reemployment rights for periods of inactive duty training (drill) periods. These rights protect the reservist against loss of jobs, seniority, status pay and vacation while away from civilian employment in training duty. Reservists must be released from work to attend military training, cannot have military training time charged against vacation time allowance, and cannot be fired because of time taken off for military activities. Federal employees who are in the reserves must be granted military leave with

pay for not more than 15 calendar days per year when called to active duty for training.⁷

Many reservists, with legally required military service obligations, move their place of residence, either voluntarily or through company transfers. Members of the Ready Reserve who change their residence within the United States will be transferred to another paid drill position where practical, and will fill an existing vacancy, or will be assigned overstrength. If not practicable, members will be assigned to another Reserve component and retrained as necessary.⁸

For more than a decade the Department of Defence has worked to ease the problem of gaining and retaining employers support for their employees service in the Reserve forces. The program conducted by the National Committee for Employer Support of the Guard and Reserve (NCESGR), began modestly in 1972 with a staff of five. Over the years the program has grown into a nationwide effort directed at local managers and supervisors, as well as the heads of firms and businesses.

Now some 2,500 volunteer committee members serve on NCESGR's 55 state-level employee support committees. These volunteers are backed by a 25 member Washington based staff, as well as by the senior Reserve commanders in each state. The group's programs include national public service awards and recognition for supportive employers, employers visits to military installations, speakers bureaus and a toll-free problem solving hotline. All the committee's work is for one purpose: to keep the reservist and his civilian

employer informed and supportive of maintaining Reserve Forces.⁹

Guard-Reserve Considerations.

Both the U.S. Army and the U.S. Air Force have two separate Reserve components, each operating under different command structures. The Air National Guard component of the U.S. Air Force is administered through the National Guard Bureau, the governor of the respective state and that state's adjutant general. The Reserve component is administered from Air Force Reserve Headquarters, through regional "numbered" headquarters to the appropriate wing/group. The Air Force has long recognised that this duplication complicates the management of the Reserve forces, and adds an unnecessary overhead of separate headquarters, staffs and facilities.

The idea of merging the Air National Guard and Air Force Reserve has been attempted at least twice. Following World War II, the Gray Committee was formed to review the deficiencies of the dual systems in the Army and Air Force, and recommended that only one Reserve component be maintained for each service. Despite the numerous advantages cited by this committee, then Secretary of Defence Forrestal did not endorse the recommendation.

In 1964 Secretary of Defence McNamara again resurrected the concept of merging the components, at least within the Army. In recognition of the powerful constitutional traditions and local politics associated with the state militia-national guard concept, it was proposed that Army Reserve units be combined under the umbrella of the National Guard organization, leaving state governors with their forces for dealing with natural disasters and preserving law and

order. After two unsuccessful attempts to push the proposal through Congress, the idea was dropped.¹⁰

In light of the political realities, one compromise which has since been suggested would see the merger of the Army Reserve into the National Guard, offset by the merger of the Air National Guard into the Air Force Reserve. While it is acknowledged that separate organizations are not efficient, merger proposals are not seen as politically attractive, and are not being actively pursued. In spite of the inefficiencies inherent in maintaining the two organizations at the national level, at the operational level there is little distinction between units of the two components, and in war both operate as members of the Active Force.

Air National Guard and Air Force Reserve units operating the same equipment are similarly organized and equipped, patterned on the organization of compatible Active Force units. While Air Force Reserve units were traditionally employed almost uniquely in air transport operations, and Air National Guard Units in air defence and tactical fighter roles, that distinction is no longer applicable. New Air Force Reserve wings have been formed and equipped with fighter aircraft, F-15 Eagles and F-16 Fighting Falcons, while Air National Guard units have been assigned new C-130 Hercules transports. Both Air National Guard and Air Force Reserve units are slated to receive the new C-17 Transport aircraft when deliveries commence in the early 1990's.¹¹

CHAPTER VI

CONCLUDING MATERIAL

If an awareness of possibilities leads to action to overcome deficiencies, then this examination of the U.S. model is worthwhile. In the latest defence white paper, the Canadian government has articulated the need to redress the capability-commitment gap facing the Canadian Forces. A Total Force policy, with increased reliance on the Reserve Forces to augment the Regular Force, is the proposed solution. This will require that the Reserves be significantly increased, and their training and equipment be improved. For the Air Reserve the increase will be dramatic, from 950 to "over 8000."

The new Canadian defence direction mirrors the Total Force policy implemented by the United States in 1970. The objectives of both are similar: the reduction of costs associated with an all volunteer force of primarily Regular force personnel through increased emphasis on Reserves. The Canadian proposal is already a reality in the United States, the responsibilities of the Reserve and Regular Forces are integrated in a Total Force, with common planning, programming, and equipping.

Within the United States Armed Forces, the USAF has demonstrated the most success in implementing the Total Force concept. The strength and combat capabilities of its two Reserve components, the Air National Guard and the Air Force Reserve, have increased significantly, while the strength of the Active Force has declined. The Reserve forces now comprise 26 percent of the total Air Force manpower, and provide significant proportions of the combat

capability. Over 75 percent of CONUS interceptors and 60 percent of tactical airlift forces are provided by the Reserve components.

During the late 1950's the RCAF Auxiliary, the Air Reserve's predecessor, was a major contributor to the combat capability of the RCAF. By contrast, today's Air Reserve provides a marginal contribution to the combat capability of the Canadian Air Force. It contributes less than 4 percent of the total Air Force manpower, and has limited resources. Implementation of the Total Force policy would substantially expand and improve the Air Reserve.

Achieving such expansion will not be easy, but the example of the USAF Reserve components holds promise of what can be accomplished. The USAF Reserves have proven that the Total Force concept is not merely an idea, but an actuality. Their evolution, from forces in reserve following World War II, to full fledged partners and contributors to the Total Force, furnishes a model for the expansion of the Canadian Air Reserve. While the measures taken to achieve that actuality are no guarantee of success, based on proven results they are better emulated than ignored.

Because of the vast differences in scale, comparisons with the U.S. Forces are not encouraged within Canadian military circles. Even one of the USAF Reserve components dwarfs the total Canadian Air Force, and to suggest a model based on the behemoth of the total U.S. Air Force would be dismissed as ideological. The dual state/federal status of the Air National Guard adds a further complexity to the discussion.

But if the mystique of size and dual status are temporarily disregarded, a number of commonalities emerge. Qualities of the

National Guard system are deeply rooted in British heritage, based on the concept of volunteer militias whose primary ties are with the local community. This was also the heritage of the RCAF Auxiliary, expressed in part through the "City of..." designation of its flying squadrons.

Other parallels may be drawn between the RCAF Auxiliary of the late 1950's and the USAF Reserves of the same period. But while the USAF Reserves continued to evolve and develop, maturing through the experience of combat and near combat operations, the RCAF Auxiliary did not. Because of differing political priorities and threat perceptions, successive restructurings left a shell of the Auxiliary in the guise of the Air Reserve of today. To reverse the process, and achieve a status comparable to that of the USAF Reserve forces, requires application of many of the measures taken by the USAF, both prior and subsequent to, promulgation of the Total Force policy.

During the pre-Total Force period, based on deficiencies identified in meeting combat capability criteria, USAF leaders undertook three major changes to the Reserve forces. These included the establishment of a separate, centralized reserve personnel center, increased emphasis on the development of locally based combat and combat support units, and the provision of large numbers of full-time support personnel.

The centralized personnel system recognized the unique requirements of reservists to be administered separately from active force personnel, and at a sufficiently high level to be effective.

Difficulties in managing and employing individual reservists, combined with evidence of the superiority of Air National Guard units, led to emphasis on development of locally supported combat units.

Difficulties in providing adequate training and technical support for air units with only part-time Reservists, and recognition that it was an inefficient use of costly training time to employ Reservists in general housekeeping duties, led to major increases in the full-time support personnel.

Adoption of the Total Force concept generated further USAF initiatives to improve the Reserve forces. These centered on the increasing provision of front line aircraft and equipment, and expanding Reserve operations into most major areas of USAF activity. Over time, this has resulted in a modernized Reserve aircraft fleet, and a progressive increase in the proportion of Reservists in all areas of the Total Force.

But it is more than mere numbers and superior equipment that distinguish the USAF from the Canadian Air Reserves. It is the intangible, the pride which bonds their members in cohesive organizations of citizen airmen. It is pride in the achievement of challenging and demanding roles, as evidenced in meeting and exceeding standards set by the Regular Force. It is pride in the recognition by the Federal government of the importance of the Reserve mission, as evinced in equitable compensation, benefits and work protection legislation. And finally, it is pride vested in the "esprit de corps" engendered by local combat units, with support and recognition by the community, of the importance of the contribution of citizen airmen to their nation's defence effort.

These intangibles must be engendered in the expansion of the Air Reserves, to achieve the success manifest in the USAF Total Force experience. The starting point must be in those areas identified in the white paper as requiring attention, air transport and maritime patrol. But rather than the "integrated" squadrons proposed in the Air Force plan, distinct Air Reserve squadrons operating individually, or under the already proven "twinning" concept, must be developed.

The Canadian government has recognized a need to close the capability-commitment gap, and has identified the expansion of the Reserves as a logical means. While this recognition is an essential first step, without action it is meaningless. Budgetary constraints are real, and ultimately were the downfall of the RCAF Auxiliary. But it is also an economic reality that "today's dollar buys less tomorrow", rendering this time-worn excuse, invalid.

Implementation of a credible Total Force will necessitate a major reallocation of funds. Money, now spent in "white papers" and Senate "recommendations", could be better channeled into implementing the concept of a Total Force into a reality. Otherwise, the recognition of need remains no more than timely political posturing.

A role model for a successful Total Force exists in the Reserve components of the United States Air Force. Its strengths are evident and may be extrapolated and applied to the Canadian situation. Those elements, that best meet the needs of the nation and the unique Canadian military commitments, can guide the expansion of the Air Reserve. Ultimately, the resolve of the government and the Air Force will dictate the success in achieving the goal of a Total Force.

NOTES

CHAPTER I (pages 1-6)

1. Canada. Department of National Defence, Challenge and Commitment: A Defence Policy for Canada (Ottawa: Canadian Government Publishing Centre, 1987)
2. Canada. Department of National Defence, White Paper on Defence, Defence in The 70's (Ottawa: Canadian Government Publishing Center, 1971)
3. Challenge and Commitment, p. 17.
4. Ibid., p. 43.
5. Ibid., pp. 45-47.
6. Ibid., p. 43.
7. Ibid., p. 47.
8. Canada. The Senate, First Report of the Sub-committee on National Defence; Manpower in Canada's Armed Forces (1982), p. 10.
9. Ibid., p. 41.
10. Canada. Department of National Defence, Defence 87 (Ottawa: Canadian Government Publishing Centre, 1987), p. 101.
11. Challenge and Commitment, p. 66.
15. Ibid.
16. MacDonald, Colonel George E. C., "The Air Force Programme: Implementing the White Paper" Canadian Defence Quarterly, Spring 1988, p. 35.
17. Ibid., p. 38.
18. Challenge and Commitment, p. 66.
19. Ibid., p. 67.
20. Defence 87, p.55
21. MacDonald, p. 37.

CHAPTER II (pages 7-13)

1. Fox-Decent, Rear Admiral W.N., "Military Undergoes Transition" The Officer, July 1988, p.26.
2. Ibid., pp. 25-27.
3. Kestenuk, S. and Griffin, J., RCAF Squadrons and Aircraft (Toronto: Samuel Stevens Hackert and Co., 1977), pp. 145-149.
4. Rohmer, Brigadier General Richard, "The Air Reserve, Its Present State and Its Plans for The Future" Canadian Defence Quarterly, Spring 1977, pp. 30-32.
5. Ashley, Lieutenant General Larry A., Presentation to The Canadian Institute of Strategic Studies, Toronto, 13 May 1988, pp. 13-17
6. Ibid.
7. Byers, R.B., "The 1987 Defence White Paper: An Analysis", Canadian Defence Quarterly, Autumn 1987, p. 18.

CHAPTER III (pages 14-19)

1. "Laird Completes Reversal of McNamara Policy for Abolition of Reserves" The Officer, October 1970, p. 7.
2. Ibid., pp. 7-8.
3. Office of the Assistant Secretary of Defence (Reserve Affairs), Reserve Components of The United States (Washington: Department of Defence, 1988.) p. 4.
4. Ibid., pp. 5-7.
5. Ibid., p. 7.

CHAPTER IV (pages 20-29)

1. Reserve Forces: Purpose, Policy, and Responsibilities for Air National Guard and Air Force Reserve, Air Force Regulation 45-1 (Washington: Department of The Air Force, 2 January 1987)
2. Office of the Assistant Secretary of Defence (Reserve Affairs), Reserve Components of the Armed Forces (Washington: Department of Defence, 1988), p. 47.

3. Carlucci, Frank C., Secretary of Defence. Annual Report to Congress - Fiscal Year 1990 (Washington: U.S. Government Printing Office, 9 January 1989), p. 226.

4. Reserve Forces. AFR 45-1, para. 3.a.(2)

5. Reserve Components. p. 45.

6. Air Force Reserve. Management Information Digest (Robins AFB: Headquarters Air force Reserve, 31 March 1988), p. B-2.

7. Scheer, Major General Roger P., Chief of Air Force Reserve. "ART Program on Target" Citizen Airman. October 1987. p. 12.

8. Reserve Components. p. 28.

9. Glines, C. V., "Prelude to the Total Force" Air Force Magazine. September 1988, p. 101.

10. Ibid.

11. Reserve Components. p. 29.

CHAPTER V (pages 30-41)

1. Binkin, Martin. U.S. Reserve Forces: The Problem of The Weekend Warrior. (Washington: The Brookings Institute, 1974), p.14.

2. Birkenhoff, John R. and Grissmer, David W., "The Reserve Forces in an All Volunteer Environment". in The All Volunteer Force. ed. Bowman, William. (Washington: Pergammon-Brassey's, 1986). p. 101.

3. Office of the Assistant Secretary of Defence (Reserve Affairs). Reserve Components of the United States Armed Forces. (Washington: Department of Defence, 1988), p. 53.

4. U.S. General Accounting Office. Can the Army and Air Force Reserves Support the Active Forces Effectively?. Report to the President LCD-79-409. (Washington: U.S. Government Printing Office, 25 April 1979). p. 149.

5. Gordon, Lieutenant Colonel Sol. Reserve Forces Almanac. (Washington: Uniformed Services Almanac, Inc., 1987). p. 6.

6. Ibid.. pp. 8-9.

7. Ibid.. p. 58

8. Ibid.. p. 59.

9. Ibid.. p. 63.

10. Reserve Forces, p. 36.

11. Air Force Issues Book - 1988. (Washington: Department of the Air Force, 1988), p. 5-3.

BIBLIOGRAPHY

- Ashley, Lieutenant General Larry A. "Presentation to The Canadian Institute of Strategic Studies Toronto, 13 May, 1988" Winnipeg: Air Command Headquarters, 1988. (Typewritten)
- Sinkin, Martin. U.S. Reserve Forces: The Problems of the Weekend Warrior. Washington: The Brookings Institute, 1974.
- Birkenhoff, John R. and Grissmer, David W. "The Reserve Forces in an All Volunteer Environment." in The All Volunteer Force. ed. Bowman, William. Washington: Pergamon-Brassey's, 1986.
- Byers, R. B. "The 1987 Defence White Paper: An Analysis." Canadian Defence Quarterly. Autumn 1987.
- Canada, Department of National Defence. Challenge and Commitment: A Defence Policy for Canada. Ottawa: Canadian Government Publishing Centre, 1987.
- Canada, Department of National Defence. Defence 87. Ottawa: Canadian Government Publishing Centre, 1987.
- Canada, Department of National Defence. White Paper on Defence: Defence in the 70's. Ottawa: Canadian Government Publishing Centre, 1971.
- Canada, House of Commons. Minister's Statement: Defence Estimates 1983/84. 1983.
- Canada, The Senate. First Report of the Subcommittee on National Defence: Manpower in Canada's Armed Forces. 1982.
- Carlucci, Frank C., Secretary of Defence. Annual Report to the Congress-Fiscal Year 1990. Washington: U.S. Government Printing Office, 1989.
- Conen, Elliot A. Citizens and Soldiers: The Dilemmas of Military Service. Ithaca: Cornell University Press, 1985.
- Fox-Decent, Rear Admiral W. N. "The Military Undergoes Transition." The Officer. July 1988.
- Glimes, C. V. "Prelude to the Total Force." Air Force Magazine. September 1988.
- Gordon, Lieutenant Colonel Sol. Reserve Forces Almanac. Washington: Uniformed Services Almanac, Inc. 1987.
- "Laird Completes Reversal of McNamara Policy for Abolition of Reserves." The Officer. October 1970.

- MacDonald, Colonel George E. C. "The Air Force Programme: Implementing The White Paper." Canadian Defence Quarterly, Spring 1988
- Margiotta, Franklin D. et. al. Changing U.S. Military Manpower Realities. Boulder: Westview Press, 1983.
- Military Manpower Task Force. A Report to the President on The Status and Prospects of the All Volunteer Force. Washington: U. S. Government Printing Office, 1982.
- Rohmer, Brigadier General Richard. "The Air Reserve: Its Present State and Its Plans for The Future." Canadian Defence Quarterly, Spring 1977.
- Scheer, Major General Roger P. "ART Program on Target." Citizen Airman, October 1987.
- United States Air Force. Air Force Issues Book. Washington: Department of the Air Force, 1988.
- United States Air Force. "Reserve Forces: Purpose, Policy and Responsibilities for Air National Guard and Air Force Reserve." Air Force Regulation 45-1.
- United States General Accounting Office. "Can the Army and Air Force Reserves Support the Active Force Effectively?" Report to The President of the United States LCD-79-404, Washington: U. S. Government Printing Office, 1979.
- United States Office of the Assistant Secretary of Defence (Reserve Affairs). Reserve Components of The United States Armed Forces. Washington: Department of Defence, 1988.
- Wilson, Bennie J. ed. The Guard And Reserve in the Total Force; The First Decade 1973-1983. Washington: National Defence University Press, 1985.